

Amendments to the Claims

The listing of claims will replace the previous version, and the listing of the claims:

Listing of Claims

1. (currently amended) A TFT array inspection apparatus for inspecting a TFT array, comprising:

irradiating means for irradiating an electron beam on the TFT array including a specific pixel and a specific site on ~~the~~ a TFT substrate to obtain a secondary electron signal, ~~and~~

scanning means for scanning the electron beam on the TFT substrate to obtain a scanning signal,

defect detecting means for detecting a defective site on the TFT substrate according to the scanning signal, and

defect analyzing means for analyzing ~~a defect of~~ at least one of ~~the specific pixel and the specific site~~ a type and an extent of a defect in the defective site based on a change in a waveform of the secondary electron signal and a driving state of the TFT array, said defect analyzing means analyzing the defective site based on the change in the waveform of the secondary electron signal obtained from the electron beam irradiated by the irradiating means and the driving state of the TFT array.

2. (currently amended) A TFT array inspection apparatus according to claim 1, wherein said ~~further comprising scanning means for scanning the electron beam on the TFT substrate to obtain a scanning signal, and defect detecting means for detecting a defective site on the TFT substrate according to the scanning signal, said irradiating means irradiating the electron beam on the defective site to obtain the secondary electron signal so that the~~ defect analyzing means analyzes the defective site in detail after the defect detecting means finds the defective site by scanning the

~~entire TFT array based on the change in the waveform of the secondary electron signal and the driving state of the TFT array.~~

3. (original) A TFT array inspection apparatus according to claim 2, further comprising switching means for switching operations between the scanning means and the irradiating means and operations between the defect detecting means and the defect analyzing means, said switching means synchronously switching between the scanning means and the irradiating means and between the defect detecting means and the defect analyzing means.

4. (currently amended) A TFT array inspection apparatus according to claim 2, wherein said defect detecting means detects the defective site including ~~at least one of a defective pixel and a~~ defective region having ~~the~~ a defective pixel on the TFT substrate.

5. (original) A TFT array inspection apparatus according to claim 2, wherein said irradiating means is an electron gun for irradiating the electron beam on the TFT substrate so that a secondary electron is discharged from the TFT substrate.

6. (original) A TFT array inspection apparatus according to claim 5, further comprising detecting means located above the TFT substrate for detecting the secondary electron discharged from the TFT substrate to obtain the secondary electron signal, and signal generating means electrically connected to the TFT substrate for applying an inspection signal to the TFT substrate, said defect analyzing means being electrically connected to the detecting means and the signal generating means for analyzing the defective site based on the secondary electron signal and the inspection signal.

7. (original) A TFT array inspection apparatus according to claim 6, further comprising a stage for placing the TFT substrate capable of moving the TFT substrate horizontally.

8. (new) A TFT array inspection apparatus according to claim 2, further comprising a memory electrically connected to the defect detecting means and the defect analyzing means so that the defective site on the TFT substrate is memorized in the memory when the defect detecting means detects the defective site, and the defective site in the memory is provided to eject electron beam from the irradiating means when the defect analyzing means is operated.